

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-36. (Canceled)

37. (Previously presented) A method of manufacturing an electroluminescence display device comprising:

providing a first evaporation source in an evaporation chamber;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from the first evaporation source to deposit the first material over the substrate in the evaporation chamber;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material;

evaporating a second material from the second evaporation source to deposit the second material over the substrate in the evaporation chamber; and

repeatedly moving a relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice,

wherein the first material and the second material are compositionally different material.

38. (Previously presented) A method of manufacturing an electroluminescence display device comprising:

providing a first evaporation source in an evaporation chamber;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from the first evaporation source to deposit the first material over the substrate in the evaporation chamber;

repeatedly moving a relative position of the first evaporation source with respect to the substrate along the second direction during the step of evaporating the first material in order that a same portion of the substrate is coated with the first material at least twice;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material;

evaporating a second material from the second evaporation source to deposit the second material over the substrate in the evaporation chamber; and

repeatedly moving a relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice,

wherein each of the first and second evaporation sources is longer than at least one edge of the substrate, and

wherein the first material and the second material are compositionally different material.

39. (Previously presented) A method of manufacturing an electroluminescence display device comprising:

providing a first evaporation source in an evaporation chamber wherein the first evaporation source comprises a plurality of first evaporation cells arranged along a first direction;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein the second evaporation source comprises a plurality of second evaporation cells;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from the first evaporation source to deposit the first material over the substrate in the evaporation chamber;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material so that the plurality of second evaporation cells are arranged in the first direction;

evaporating a second material from the second evaporation source to deposit the second material over the substrate in the evaporation chamber;

repeatedly moving a relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice; and

cleaning an inside of the evaporation chamber,

wherein the first material and the second material are compositionally different material.

40. (Previously presented) A method of manufacturing an electroluminescence display device comprising:

providing a first evaporation source in an evaporation chamber wherein the first evaporation source comprises a plurality of first evaporation cells arranged along a first direction;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein the second evaporation source comprises a plurality of second evaporation cells;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from the first evaporation source to deposit the first material over the substrate in the evaporation chamber;

repeatedly moving a relative position of the first evaporation source with respect to the substrate along a second direction during the step of evaporating the first material in order that a same portion of the substrate is coated with the first material at least twice;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material so that the plurality of second evaporation cells are arranged in the first direction;

evaporating a second material from the second evaporation source to deposit the second material over the substrate in the evaporation chamber;

repeatedly moving a relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice; and

cleaning an inside of the evaporation chamber,

wherein each of the first and second evaporation sources is longer than at least one edge of the substrate, and

wherein the first material and the second material are compositionally different material.

41-42. (Canceled)

43. (Previously presented) The method according to claim 37 wherein the second direction is orthogonal to the first direction.

44-47. (Canceled)

48. (Currently Amended) The method according to any one of claims ~~20 and~~ 37 to 40 wherein at least one of the first and second materials comprises an organic material.

49-52. (Canceled)

53. (Previously presented) The method according to any one of claims 37 and 39 wherein the relative position of the first evaporation source is repeatedly moved with respect to the substrate so that a same portion of the substrate is coated with the first material at least twice.

54. (Previously presented) A method of manufacturing an electroluminescence display device comprising:

providing a first evaporation source in an evaporation chamber;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from the first evaporation source to deposit the first material over the substrate in the evaporation chamber;

repeatedly moving a relative position of the first evaporation source with respect to the substrate along the second direction during the step of evaporating the first material in order that a same portion of the substrate is coated with the first material at least twice;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material;

evaporating a second material from the second evaporation source to deposit the second material over the substrate in the evaporation chamber;

repeatedly moving a relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice; and

cleaning an inside of the evaporation chamber,

wherein the first material and the second material are compositionally different material.

55. (Previously presented) A method of manufacturing an electroluminescence display device comprising:

providing a first evaporation source in an evaporation chamber;

providing a second evaporation source in a second chamber connected to the evaporation chamber wherein each of the first and second evaporation sources has a first direction and a second direction different from each other, each of the first and second evaporation sources being longer in the first direction than in the second direction;

disposing a substrate in the evaporation chamber;

fixing a mask to the substrate wherein the mask is located between the substrate and the first evaporation source;

evaporating a first material from the first evaporation source to deposit the first material over the substrate in the evaporation chamber;

repeatedly moving a relative position of the first evaporation source with respect to the substrate along the second direction during the step of evaporating the first material in order that a same portion of the substrate is coated with the first material at least twice;

transferring the second evaporation source from the second chamber into the evaporation chamber after evaporating the first material;

evaporating a second material from the second evaporation source to deposit the second material over the substrate in the evaporation chamber;

repeatedly moving a relative position of the second evaporation source with respect to the substrate along the second direction during the step of evaporating the second material in order that a same portion of the substrate is coated with the second material at least twice; and

cleaning an inside of the evaporation chamber,

wherein each of the first and second evaporation sources is longer than at least one edge of the substrate, and

wherein the first material and the second material are compositionally different material.

56. (Previously presented) The method according to claim 38 wherein the second direction is orthogonal to the first direction.

57. (Previously presented) The method according to claim 39 wherein the second direction is orthogonal to the first direction.

58. (Previously presented) The method according to claim 40 wherein the second direction is orthogonal to the first direction.

59. (Previously presented) The method according to claim 37 wherein the display device is an active matrix electroluminescence display device.

60. (Previously presented) The method according to claim 38 wherein the display device is an active matrix electroluminescence display device.

61. (Previously presented) The method according to claim 39 wherein the display device is an active matrix electroluminescence display device.

62. (Previously presented) The method according to claim 40 wherein the display device is an active matrix electroluminescence display device.

63. (Canceled)

64. (Previously presented) The method according to claim 37 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or linear shape region is maintained by using the first evaporation source during the evaporation.

65. (Previously presented) The method according to claim 38 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or linear shape region is maintained by using the first evaporation source during the evaporation.

66. (Previously presented) The method according to claim 39 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or linear shape region is maintained by using the first evaporation source during the evaporation.

67. (Previously presented) The method according to claim 40 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or linear shape region is maintained by using the first evaporation source during the evaporation.

68. (Previously presented) The method according to claim 54 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or linear shape region is maintained by using the first evaporation source during the evaporation.

69. (Previously presented) The method according to claim 55 wherein uniformity of the distribution of film thickness of a thin film in a rectangular shape, elliptical shape, or linear shape region is maintained by using the first evaporation source during the evaporation.

70. (Canceled)

71. (Previously presented) The method according to claim 54 wherein at least one of the first and second materials comprises an organic material.

72. (Previously presented) The method according to claim 55 wherein at least one of the first and second materials comprises an organic material.

73-74. (Canceled)

75. (Previously presented) The method according to claim 37 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

76. (Previously presented) The method according to claim 38 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

77. (Previously presented) The method according to claim 39 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

78. (Previously presented) The method according to claim 40 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

79. (Previously presented) The method according to claim 54 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

80. (Previously presented) The method according to claim 55 wherein each of the first and second evaporation sources has a length exceeding 300 mm along the first direction.

81-104. (Canceled)

105. (Previously presented) A method according to claim 37, wherein the substrate is located above the first evaporation source,
wherein the first material is formed on a lower surface of the substrate.

106. (Previously presented) A method according to claim 37, wherein a lower surface of the substrate is provided with thin films.

107. (Previously presented) A method according to claim 37, wherein a lower surface of the substrate is provided with a transparent conducting film.

108. (Previously presented) A method according to claim 38, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

109. (Previously presented) A method according to claim 38, wherein a lower surface of the substrate is provided with thin films.

110. (Previously presented) A method according to claim 38, wherein a lower surface of the substrate is provided with a transparent conducting film.

111. (Previously presented) A method according to claim 39, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

112. (Previously presented) A method according to claim 39, wherein a lower surface of the substrate is provided with thin films.

113. (Previously presented) A method according to claim 39, wherein a lower surface of the substrate is provided with a transparent conducting film.

114. (Previously presented) A method according to claim 40, wherein the substrate is located above the first evaporation source,

wherein the first material is formed on a lower surface of the substrate.

115. (Previously presented) A method according to claim 40, wherein a lower surface of the substrate is provided with thin films.

116. (Previously presented) A method according to claim 40, a lower surface of the substrate is provided with a transparent conducting film.

117. (Previously presented) A method according to claim 54, wherein the substrate is located above the first evaporation source,
wherein the first material is formed on a lower surface of the substrate.

118. (Previously presented) A method according to claim 54, wherein a lower surface of the substrate is provided with thin films.

119. (Previously presented) A method according to claim 54, wherein a lower surface of the substrate is provided with a transparent conducting film.

120. (Previously presented) A method according to claim 55, wherein the substrate is located above the first evaporation source,
wherein the first material is formed on a lower surface of the substrate.

121. (Previously presented) A method according to claim 55, wherein a lower surface of the substrate is provided with thin films.

122. (Previously presented) A method according to claim 55, wherein a lower surface of the substrate is provided with a transparent conducting film.

123-144. (Canceled)

145. (Previously presented) A method according to claim 39, wherein a gap between the first evaporation cells has a distance a and a distance between the first evaporation source and the mask is $2a$ to $100a$.

146. (Previously presented) A method according to claim 145, wherein the distance between the first evaporation source and the mask is $5a$ to $50a$.

147. (Previously presented) A method according to claim 39, wherein a gap between the second evaporation cells has a distance a and a distance between the second evaporation source and the mask is $2a$ to $100a$.

148. (Previously presented) A method according to claim 147, wherein the distance between the second evaporation source and the mask is $5a$ to $50a$.

149. (Previously presented) A method according to claim 40, wherein a gap between the first evaporation cells has a distance a and a distance between the first evaporation source and the mask is $2a$ to $100a$.

150. (Previously presented) A method according to claim 149, wherein the distance between the first evaporation source and the mask is 5a to 50a.

151. (Previously presented) A method according to claim 40, wherein a gap between the second evaporation cells has a distance a and a distance between the second evaporation source and the mask is 2a to 100a.

152. (Previously presented) A method according to claim 151, wherein the distance between the second evaporation source and the mask is 5a to 50a.

153. (Previously presented) A method according to claim 38, wherein during evaporation each of the first and second evaporation sources moves from one end of the substrate to the other end.

154. (Previously presented) A method according to claim 40, wherein during evaporation each of the first and second evaporation sources moves from one end of the substrate to the other end.

155. (Previously presented) A method according to claim 55, wherein during evaporation each of the first and second evaporation sources moves from one end of the substrate to the other end.

156. (Canceled)

157. (Previously presented) A method according to claim 37, wherein the display device is a passive matrix electroluminescence display device.

158. (Previously presented) A method according to claim 38, wherein the display device is a passive matrix electroluminescence display device.

159. (Previously presented) A method according to claim 39, wherein the display device is a passive matrix electroluminescence display device.

160. (Previously presented) A method according to claim 40, wherein the display device is a passive matrix electroluminescence display device.

161. (Previously presented) A method according to claim 54, wherein the display device is a passive matrix electroluminescence display device.

162. (Previously presented) A method according to claim 55, wherein the display device is a passive matrix electroluminescence display device.

163-176. (Canceled)